

IN THE SPECIFICATION

Please replace paragraph 0013 of the present specification with the following amended paragraph:

[0013] ~~The easing~~ A body may comprise a conduit for carrying a stream of fluent material. In certain preferred embodiments, the ~~easing~~ body has surface profiling that is constructed and arranged in the conduit so as to disrupt the fluent material into discontinuous parts.

Please replace paragraph 0014 of the present specification with the following amended paragraph:

[0014] In one embodiment, the ~~easing~~ body defines an orifice and the conduit terminates at the orifice so that the discontinuous parts of fluent material are produced at the orifice.

Please replace paragraph 0016 of the present specification with the following amended paragraph:

[0016] The ~~easing~~ body preferably includes a chamber having a first end and a second end. The first end of the ~~easing~~ body is open on the conduit at the orifice. A conductive grid is preferably disposed within the chamber adjacent the first side of the membrane. A power supply is connected to the grid to apply an electrical potential to the grid for enhancing the penetration of the electrons to the orifice.

Please replace paragraph 0017 of the present specification with the following amended paragraph:

[0017] In certain preferred embodiments, the electron supply device comprises an electron emitter arranged on the central axis and having a tip facing the orifice. The ~~easing~~ body preferably includes a chamber having a first end and a second end. The first end of the ~~easing~~ body is open on the conduit at

the orifice, and the tip of the emitter is disposed in the chamber.

Please replace paragraph 0020 of the present specification with the following amended paragraph:

[0020] The ~~easing~~body may have many shapes and comprise one or more parts. For example, the ~~easing~~body may comprise a first cylindrical part having a first surface and a second cylindrical part with a second surface. The first cylindrical part is received in the second cylindrical part so that the first surface and the second surface cooperatively define the conduit.

Please replace paragraph 0027 of the present specification with the following amended paragraph:

[0027] In a further aspect of the present invention, an apparatus for dispersing a fluent material comprises a ~~easing~~body defining a conduit for passing a stream of fluent material to an orifice defined by the ~~easing~~body. The orifice is disposed on a central axis. The apparatus includes an electron supply device for providing free electrons so that the electrons impinge on the fluent material at the orifice to provide a net charge on the fluent material. The ~~easing~~body has a chamber with an end adjacent the orifice, open on the conduit, and disposed on the central axis. The fluent material is dispersed at least partially under the influence of the net charge.

Please replace paragraph 0028 of the present specification with the following amended paragraph:

[0028] Preferably, a surface of the ~~easing~~body defining the conduit comprises surface profiling adjacent the orifice for disrupting the stream of fluent material.

Please replace paragraph 0039 of the present specification with the following amended paragraph:

[0039] An apparatus in accordance with one embodiment of the present invention is shown in Figs. 1-4. The apparatus 11 includes a body 10 incorporating a central portion 12 and a cover portion 14. The central portion and cover portion are substantially symmetrical about a central axis 18. The central portion 12 is desirably cylindrical. The cover portion 14 is desirably cylindrical and has a cavity with an open face that receives the central portion within the cavity. The central portion has a central cylinder 13 that is received in the cover portion 14. The cover portion 14 is attached to the central portion 12 by threads 16. The central cylinder 13 has a central surface 29. The cover portion 14 has a cover surface 31 that faces the central surface 29 when the central portion 12 is received in the cover portion 14. These surfaces are shaped so as to cooperatively define a cylindrical space 20 and a generally conical space 22. The cylindrical space 20 and conical space 22 communicate with one another and lead to an orifice 24 formed in the cover portion 14. Spaces 20 and 22 and the orifice 24 are substantially concentric with one another and are centered on axis 18. Body 10, and more particularly Spaces spaces 20 and 22 within the body, cooperatively define a continuous conduit 26, open on the orifice 24 and terminating at the orifice 24. An inlet opening 28 is provided at an end of the conduit 26 and communicates with the cylindrical space 20. A seal 15 is provided between the central cylinder 13 and cover portion 14 so that when the cover portion 14 is screwed onto the central portion 12, the conduit 26 is sealed. Although the embodiment of Figs. 1-4 shows a body 10 comprising cylindrical parts, the body may have virtually any shape and may be comprised of one or more parts. In addition, the conical surface 29 shown in Fig. 3 may have a rectangular or triangular

shape in cross-section and the conduit 26 may have shapes other than described above.

Please replace paragraph 0051 of the present specification with the following amended paragraph:

[0051] The liquid traveling in the conduit 26 encounters the flutes 30 as the liquid traverses the surface 29 on the central cylinder 13 of body 10 and approaches the orifice 24. The flutes 30 disrupt the liquid, so that the flutes 30 and conduit 26 cooperatively act as an initial disperser. The stream of disrupted turbulent liquid 62 is schematically represented by arrows in Figs. 1, 2 and 4. The stream of disrupted liquid 62 enters the orifice 24 and forms a whirling frothy flow 63 just outside the orifice 24. The frothy flow 63 is schematically depicted in Fig. 4. The frothy flow 63 is the stream of liquid 62 broken into discontinuous parts 64. The stream of liquid is initially dispersed by the profiling in the conduit 26. However, other initial dispersers may be used, such as nozzles that direct a spray at the central axis 18.